Product Evaluation

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: RC-418

Effective Date: October 1, 2014
Re-evaluation Date: October 2018

Product Name: 2" Mueller Lock (MLK) Metal Roofing Panels Installed Over Steel Purlins

Manufacturer: Mueller, Inc.
Metal Buildings, Roofing, and Components
1913 Hutchins Avenue
Ballinger, TX 76821
(800) 231-1034 ext. 8155

Product Description:
The 2" Mueller Lock (MLK) panel is minimum 24-gauge galvalume steel with an optional paint finish. The metal roofing panels have 16" of coverage. The panel has 2" tall mechanical double lock standing seam rib. The 24-gauge steel material conforms to ASTM A 792 AZ55, Grade 50, with a 50 ksi yield point with optional painted finishes. Form panels within the panel rollformer specifications and tolerances.

Panel Rollformer: Schlebach Quadro-Plus Rollformer
Metalforming, Inc.
100 International Drive
Peachtree City, GA 30269

Limitations:

- **Roof Framing:** Install the metal roofing panels over open steel purlins. For purlins, use a minimum 16-gauge steel.
- **New Roof Framing Attachment:** The roof framing must meet or exceed the uplift requirements of the IRC or IBC and installed as required for resistance to wind loads.
- **Design Wind Pressures:** Use the design pressure uplift load resistance specifications in Table 1.

- **Roof Slope:** Install the metal roofing panels on roofs with a roof slope as low as 1/2:12 if using sealant on the panel side laps. If not using sealant on the panel side laps, then the minimum roof slope is 3:12.
- **Installation Over an Existing Roof Covering:** Not permitted.

Table 1: Attachment of 2" Mueller Lock (MLK) metal roofing panels to steel purlins

Design Wind Pressure (psf)	Panel Clip Spacing
-155	1'-0" on center
-141.3	1'-6" on center
-127.5	2'-0" on center
-113.8	2'-6" on center
-100	3'-0" on center
-86.3	3'-6" on center
-72.5	4'-0" on center
-58.8	4'-6" on center
-45	5'-0" on center

Installation Instructions:

- **General:** Install the metal roofing panels in accordance with the manufacturer's recommended installation instructions and this evaluation report.
- **Steel Purlins:** Use a minimum 16-gauge steel purlins. Table 1 specifies the maximum spacing of the purlins.
- **Underlayment:** N/A
- **Attachment of Metal Roof Panels to the Steel Purlins:** Secure the metal roofing panels to the roof using a sliding clip with two (2), No. 1/4-14 HWH Self Driller. Use fasteners long enough to ensure a minimum penetration of three pitches of thread below the steel purlin.
- **Panel Clip:** Two-piece sliding clip, NC-33014-3 by Login Stamping, Inc
- **Panel Seam:** The panel is seamed to a 180-degree seam (double lock) with a mechanical seamer
- **Panel Ends and Edges:** Install panel ends and edges as required by the manufacturer.
- **Trims, Closures, and Accessories:** Install components, such as the eave trim, rake trim, ridge trim, hip trim, and valley trim as required by the manufacturer.

Note: The manufacturer's installation instructions must be available on the job site during the installation. Use corrosion resistant fasteners as specified in the IRC, the IBC, and the Texas Revisions.